

Applicant : David H. Shen  
Serial No. : 10/810,603  
Filed : March 29, 2004  
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### REMARKS

In view of the following remarks and the amendments reconsideration and allowance are respectfully requested.

Claims 1-7, 9-11, 15-30 are pending in this application, with claims 1, 16 and 29 being independent. Claims 1-7, 9-11 and 15 have been amended. Claims 16-30 have been cancelled.

Applicant asserts that no new matter has been added in the amended text, claims and drawings in this paper.

### **Substitute Specification Excluding Claims Objections**

The Substitute Specification excluding claims filed on 11/3/2008 is objected by the Examiner under 35 U.S.C. 132(a) which states that no amendment shall introduce new matter into the disclosure of the invention. Applicant respectfully cancels all changes to the disclosure of the invention in the text of the specification. The amended text of the specification is the original text of the specification of the disclosure of the invention filed on March 29, 2004.

This objection is respectfully traversed.

### **Drawing Objections**

The Fig. 3 and Figs. 4b-14 have been objected to under 35 U.S.C. 132(a). Figs. 4b-14 have been cancelled.

These objections are respectfully traversed.

### **Claim Rejections under 35 U.S.C. 132(a)**

Claims 1-7, 9-11 and 15-30 have been rejected under 35 U.S.C. 132(a) as introduced new matter. Applicant has cancelled claims 16-30. The amended independent claim 1 is patentable at least because claim is supported by original Fig. 2 and claims 1, 4 and 15 filed on March 29, 2004. Amended claims 1-7, 9 and 15 are patentable at least because claims 1-7, 9 and 15 are dependent claims of amended claim 1.

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Therefore, applicant respectfully asks that the amended claims 1-7, 9-11 and 15 be allowed.

**Claim Rejection as under 35 U.S.C. § 112**

Claims 1-7, 9-11 and 15-30 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner objects to independent Claims 1, 16 and 29 as not supported by the original disclosure. Applicant has cancelled claims 16-30. Independent claim 1 has been amended to elect a finite impulse response filter (FIR). Dependent claims 1-7, 9 and 15 have been amended to comply with the written description requirement of 35 U.S.C. § 112, first paragraph. The amended independent claim 1 is patentable at least because claim is supported by Fig. 2 and claims 1, 4 and 15 filed on March 29, 2004. Amended claims 1-7, 9 and 15 are patentable at least because claims 1-7, 9 and 15 are dependent claims of amended claim 1.

Applicants request that these rejections be withdrawn.

**Claim Rejection as under 35 U.S.C. § 103 (a)**

Amended claims 1-7, 9-11, 15 and new claims 31 and 32 are patentable at least because the distinct differences between the disclosure in this application from Kasper et al.'s U.S. Patent No. 5,055,795 titled "Traveling Wave Type Transversal Equalizer" pointed out in the following:

The disclosure as described in the specification and in the drawings, the disclosed analog filter uses one transmission delay line (or a pair of transmission delay lines for a differential input signal) for a FIR filter and an additional transmission delay line to enable the feedback of the output signal into the filter structure for an IIR filter.

Further the disclosed analog filter sums converted currents from input signal and delayed input signals to perform the filter functions by tunable transconductance elements before converting back by a transimpedance amplifier.

1. Kasper et al.'s patent needs to have two delay lines for an equalizer, one at the input of the traveling wave amplifier and one at the output of the traveling wave amplifier. It is

well known in the art that traveling wave amplifiers require two transmission delay lines in order to provide distributed amplification and time synchronization between input and output signals of the traveling wave amplifier. This disclosure does not require the two input and output transmission delay lines as in the traveling wave amplifier and this disclosure does not require any time synchronization of input and output signals of the traveling wave amplifier.

2. Kasper et al.'s patent only has a forward propagation structure without any capability for a feedback of the output signal, thus can not provide any IIR filtering capability as described in this invention..
3. Kasper et al.'s patent does not include voltage-current-voltage conversions using transconductance or transimpedance amplifiers.
4. Kasper et al.'s patent does not sum currents at a summing node.

Applicant respectfully asks the amended claims 1-7, 9-11 and 15 be allowed.

### Conclusion

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

*The fee in the amount of \$405 for Request for Continued Examination fees and a \$310 for one more month for the Petition for Extension of Time fee is being paid concurrently herewith via check.*

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Respectfully submitted,

Date: \_\_\_\_\_

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